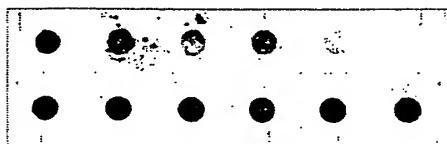


**A**

**A $\beta$ 1-42[E22Q]**

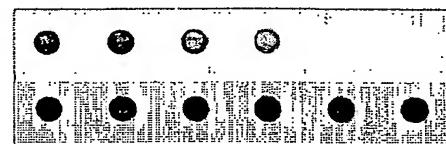
7,5 15 45 75 150 300 [ $\mu$ M]



**B**

**HDQ51**

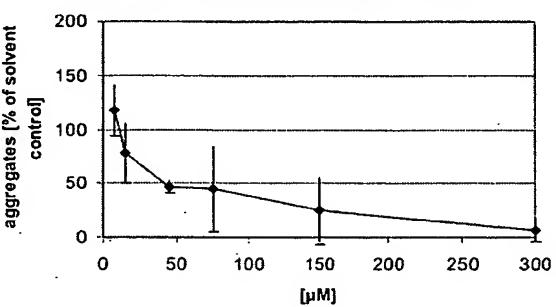
3,125 6,25 12,5 25 50 100 [ $\mu$ M]



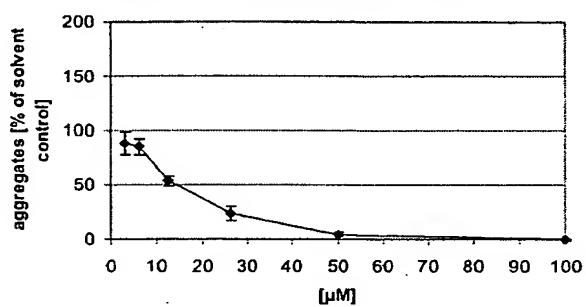
# 6

Solvent

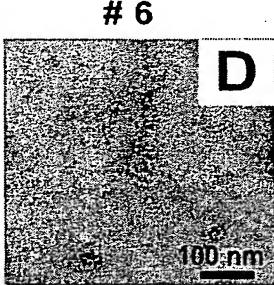
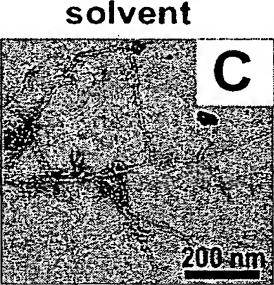
Effect of # 6 on Amyloid  $\beta$  aggregation *in vitro*



Effect of # 6 on HDQ51 aggregation *in vitro*



A $\beta$ 1-42[E22Q]



A $\beta$ 1-42[E22Q]

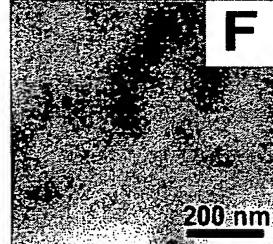
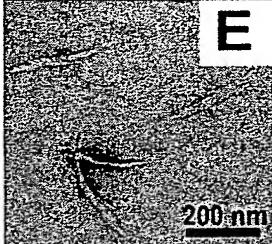
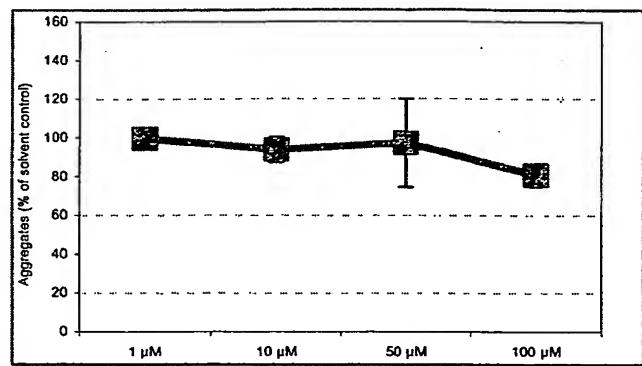
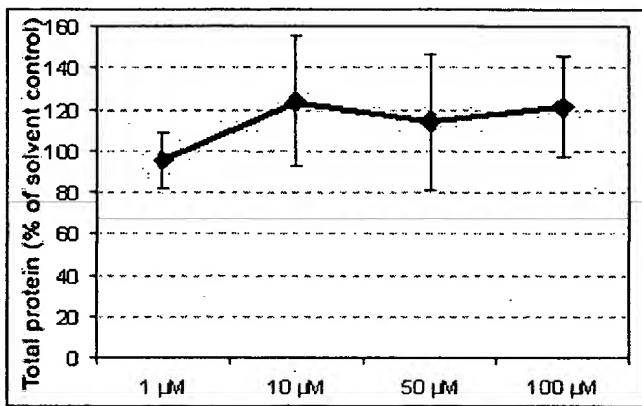


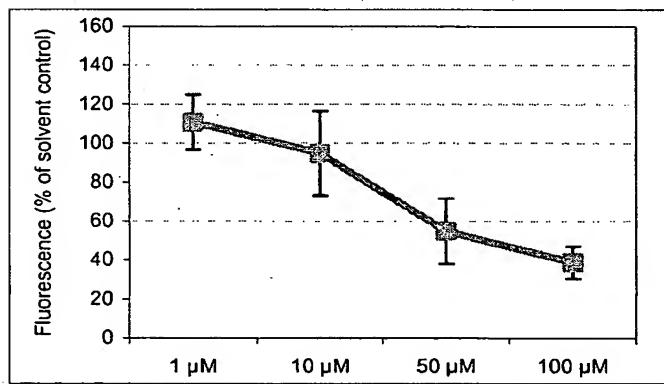
Figure 1



A

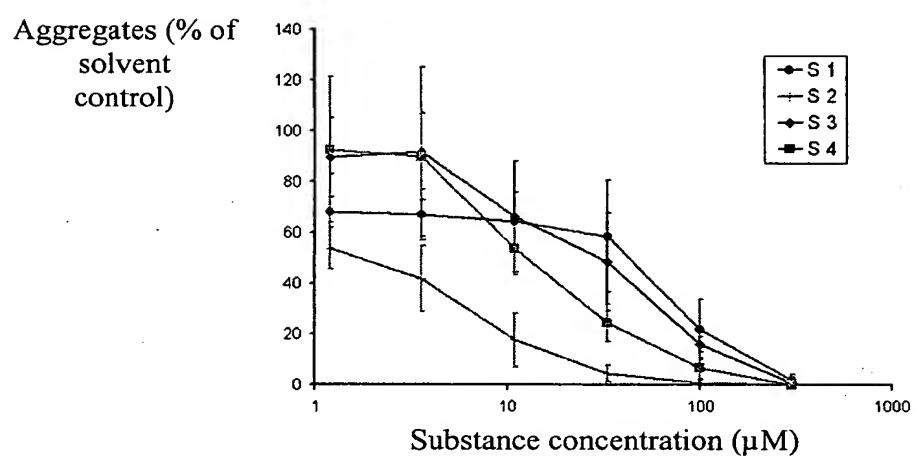


B



C

Figure 2



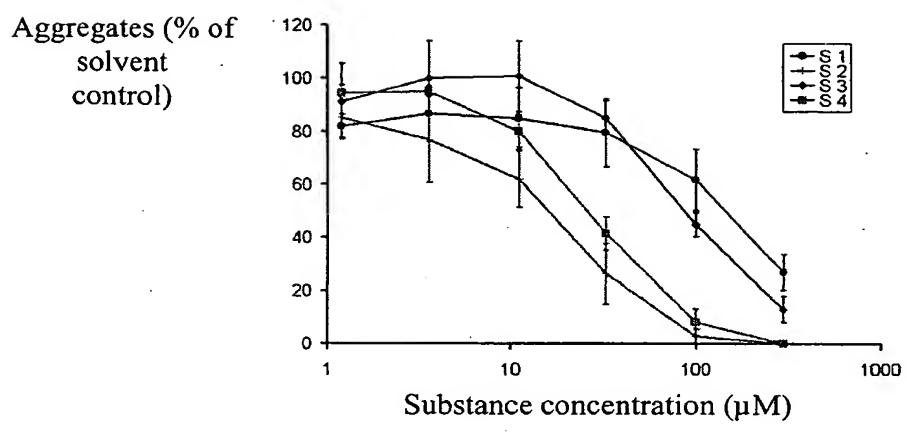
S1 = 2-(1H-Imidazole-4-yl)-1H-perimidine

S2 = 1- Ethyl-1H-perimidine

S3 = 2-Pyridine-3-yl-1H-perimidine

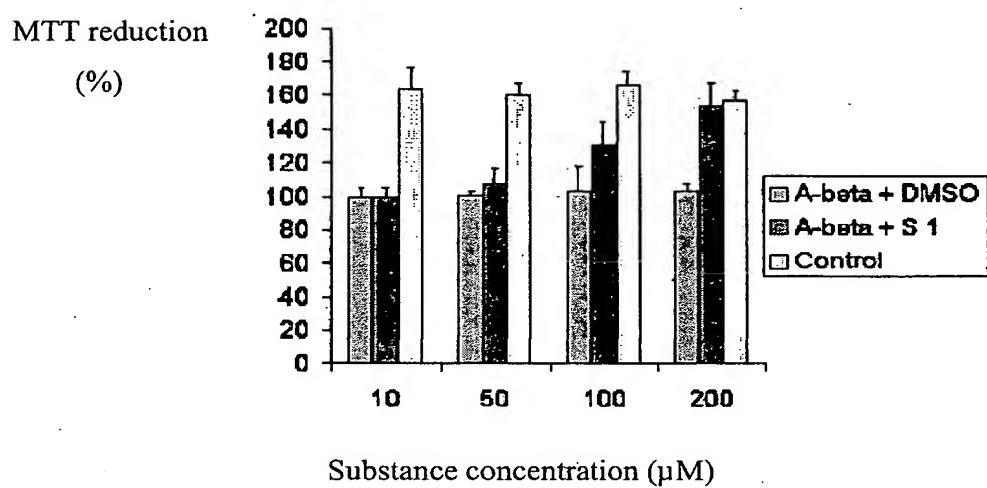
S4 = 2-p-Tolyl-1H-perimidine

Figure 3



S1 = 1,2-Dimethyl-1H-perimidine  
S2 = 4-(1H-Perimidine-2-yl)-benzonitrile  
S3 = 1H,3H-Perimidine-2-thione  
S4 = 3-(1H-Perimidine-2-yl)-phenylamine

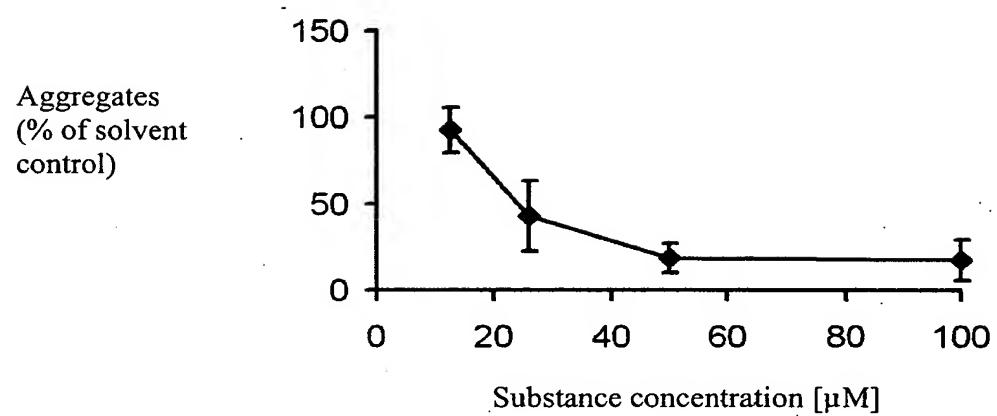
Figure 4



Example:

Substance: 3-(1H-Perimidine-2-yl)-phenylamine

Figure 5



Substance: (1-Methyl-1H-perimidine-2-yl)-methanol

Figure 6

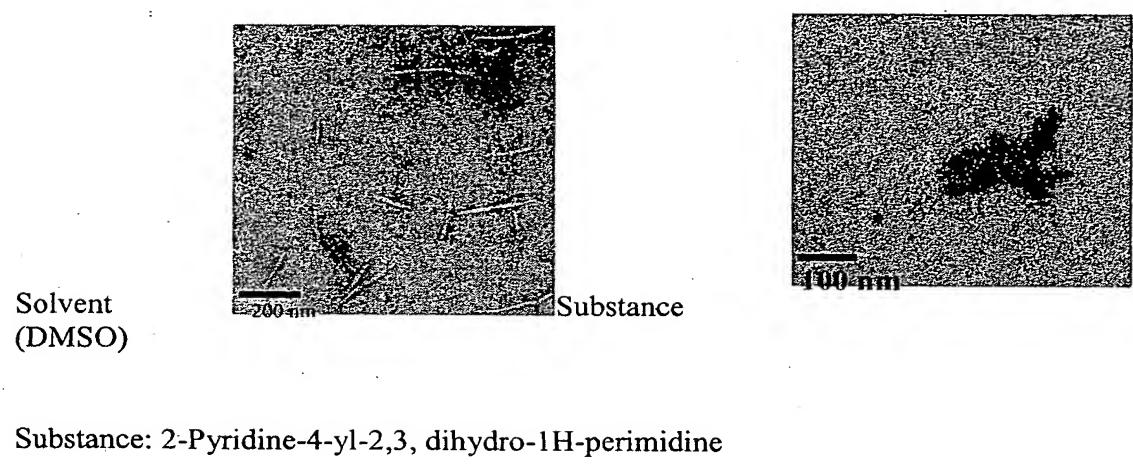
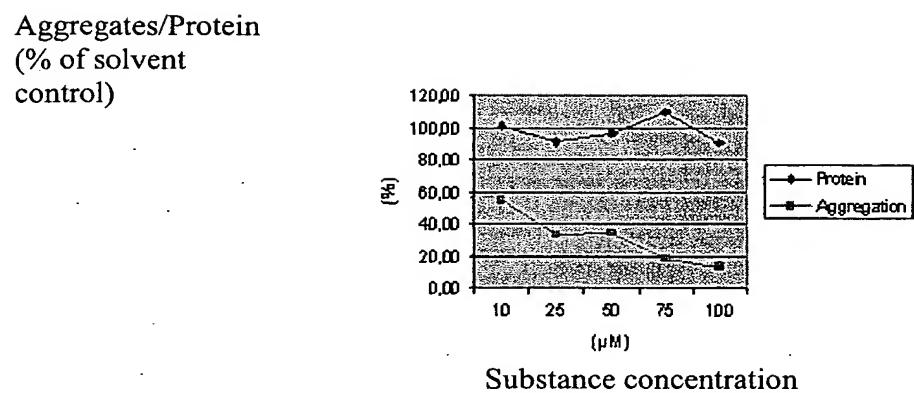


Figure 7

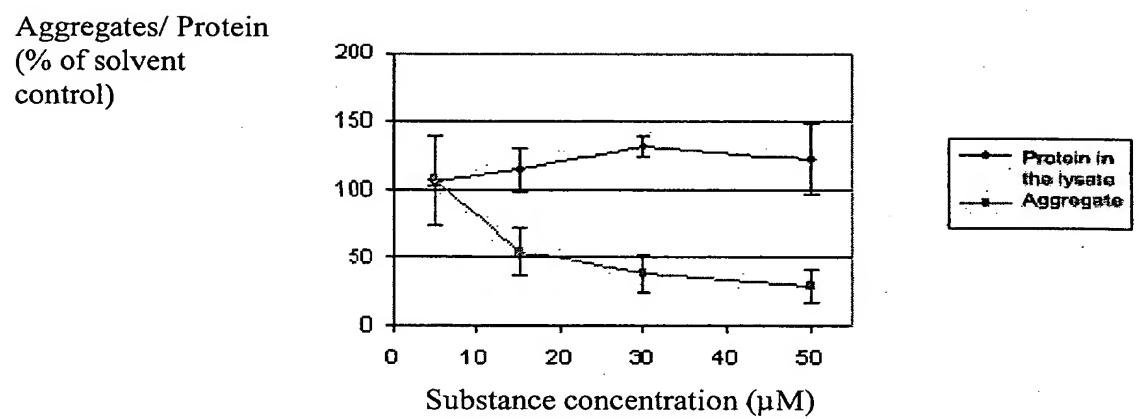


Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

Substance: 8-Fluoro-1,2-dimethyl-4,5-dihydro-pyrrolo[3,2,1-ij]quinoline-6-one

Figure 8



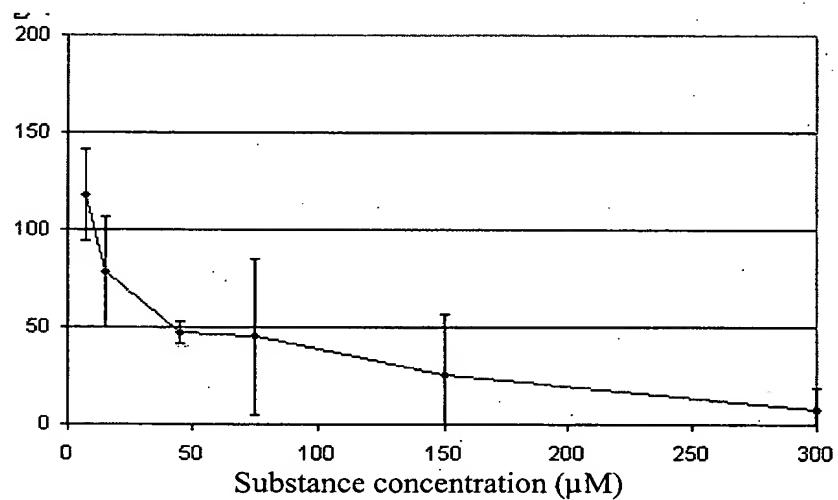
Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

Substance: 8-Fluoro-1,2-dimethyl-4,5-dihydro-pyrrolo[3,2,1-ij]quinoline-6-one

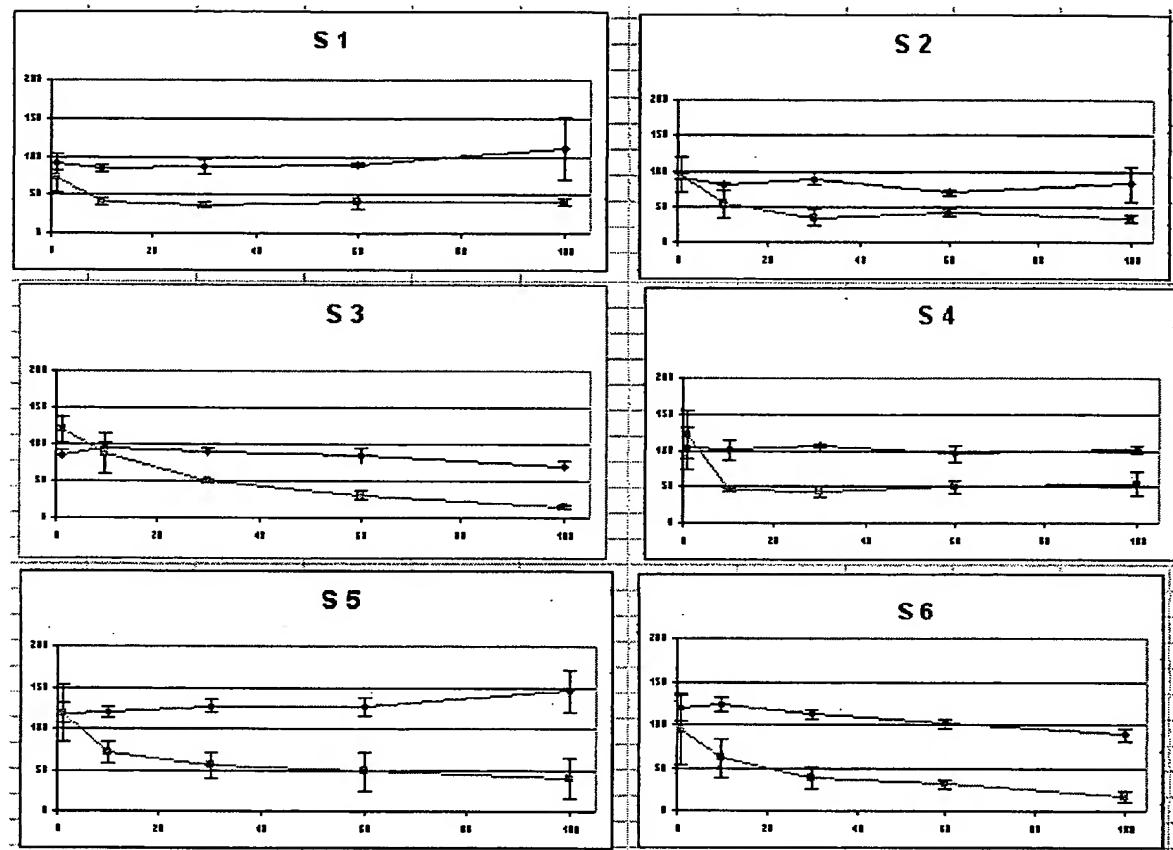
Figure 9

Aggregates (% of solvent control)



Example: 2-Furan-2-yl-2,3,4,9-tetrahydro-1H-indenol[2,3-c]pyridine-3-carboxylic acid methyl ester

Figure 10



Ordinate: Aggregates/Protein (% of solvent control)

Abscissa: Substance concentration (μM)

Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

Substances:

S1 = 3H-Phenoxazine

S2 = Phenoxazine-3-one

S3 = 7-Amino-1,9-dimethyl-phenoxazine-3-one

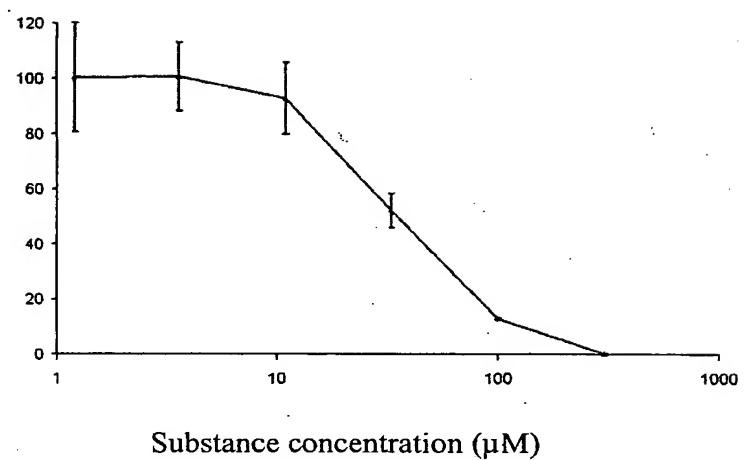
S4 = Beta-amino-orcein

S5 = Alpha-amino-orcein

S6 = Alpha-hydroxy-orcein

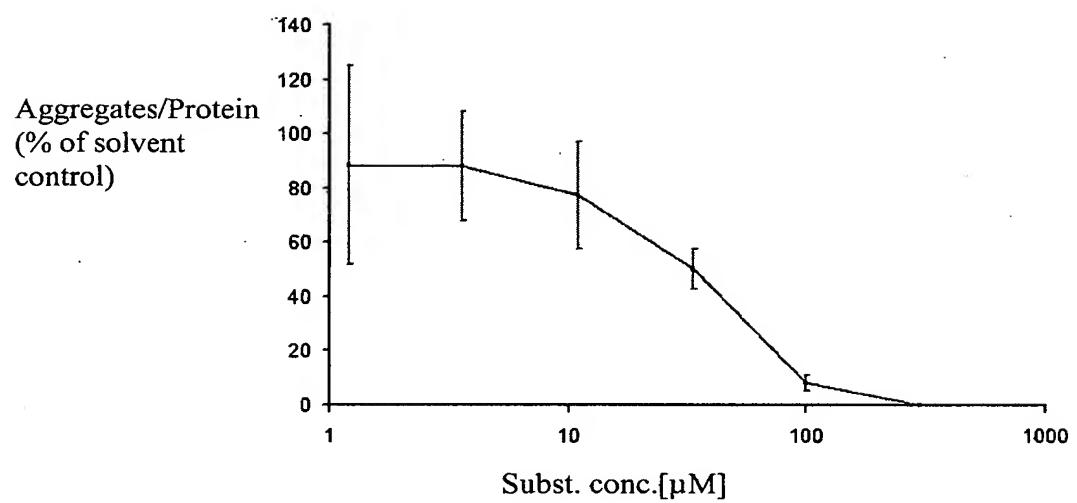
Figure 11

Aggregates/Protein  
(% of solvent  
control)



Substance: 1,9-Dimethyl-phenoxazine-3-one

Figure 12



Substance: 7-Hydroxy-1,9-dimethyl-phenoxyazine-3-one

Figure 13

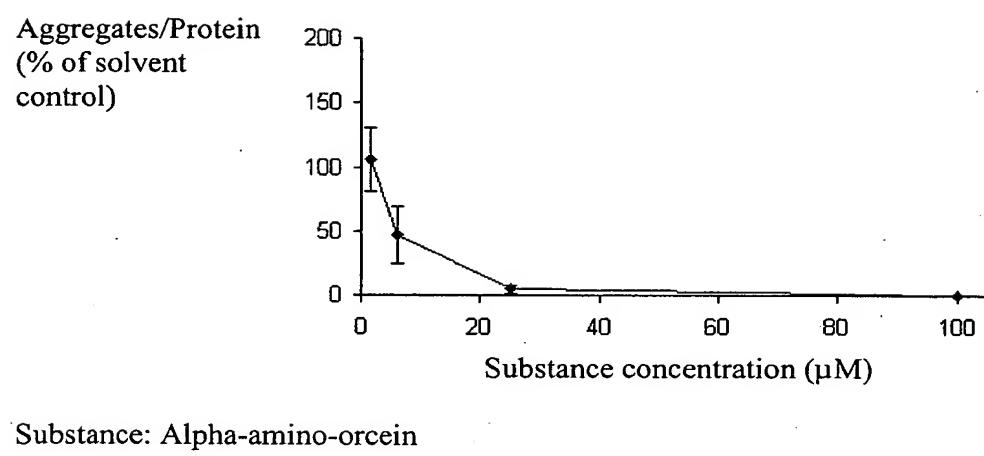
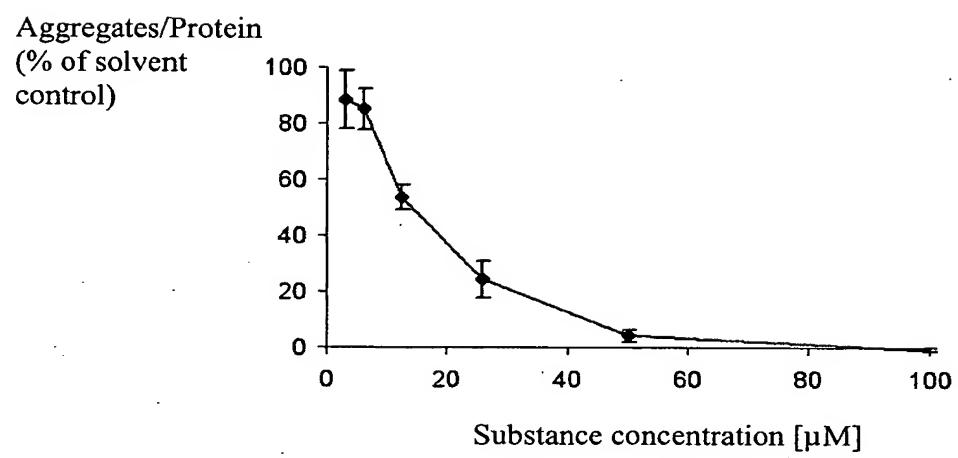


Figure 14

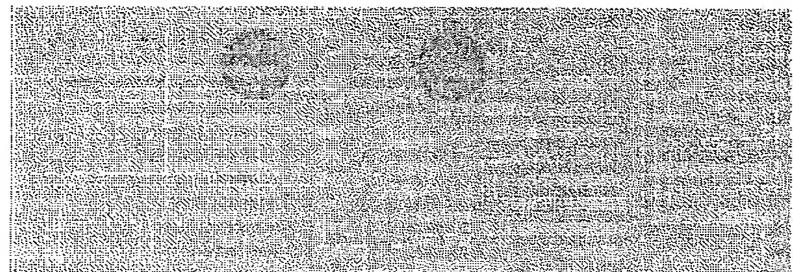


Substance: Beta-hydroxy-orcein

Figure 15

Substance concentration/ $\mu$ M 6.25 205 100

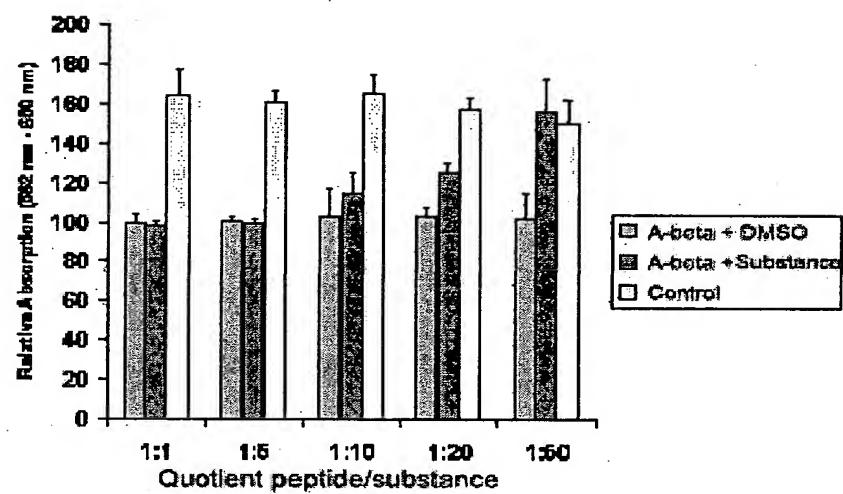
+ Amyloid- $\beta$



- Amyloid- $\beta$

Example: Alpha-amino-orcein

Figure 16



Example: Alpha-amino-órccein

Figure 17

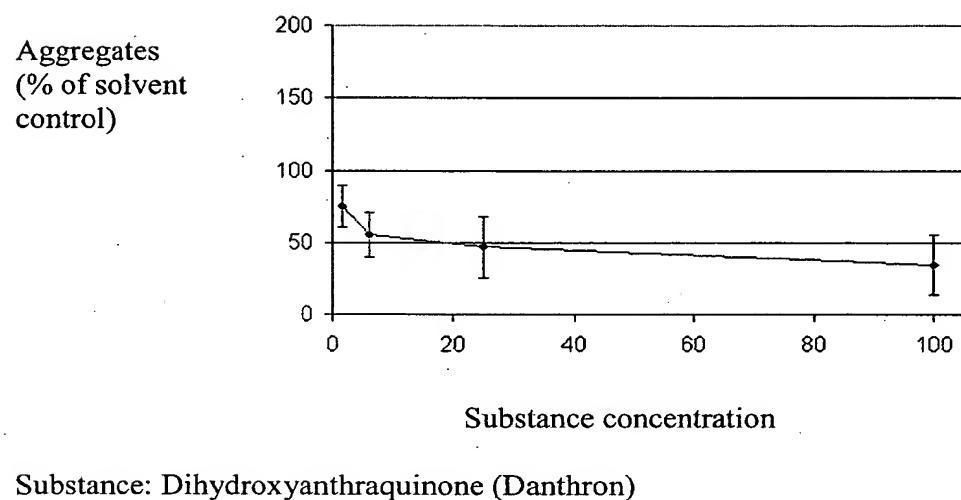


Figure 18

Aggregates  
(% of solvent  
control)

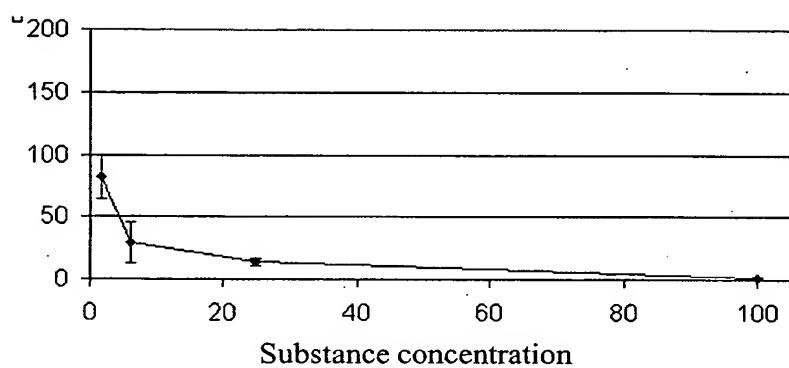
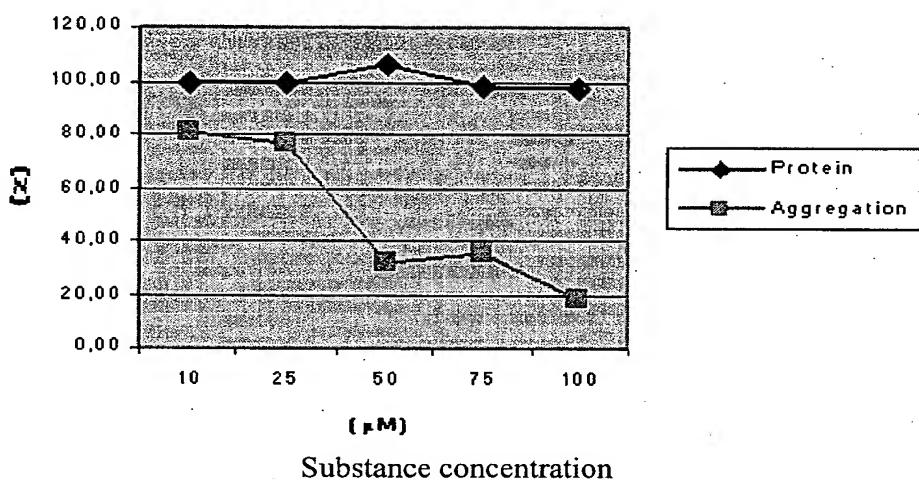


Figure 19

Ordinate: Aggregates/Protein  
(% of solvent  
control)



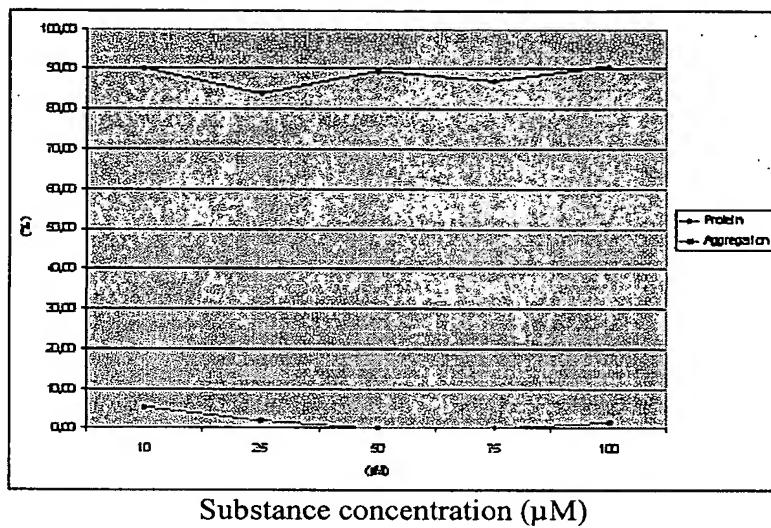
Blue Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

Substance: Thiophene-2-yl-acetic acid 4-(4-acetyl-piperazine-1-yl)-phenyl ester

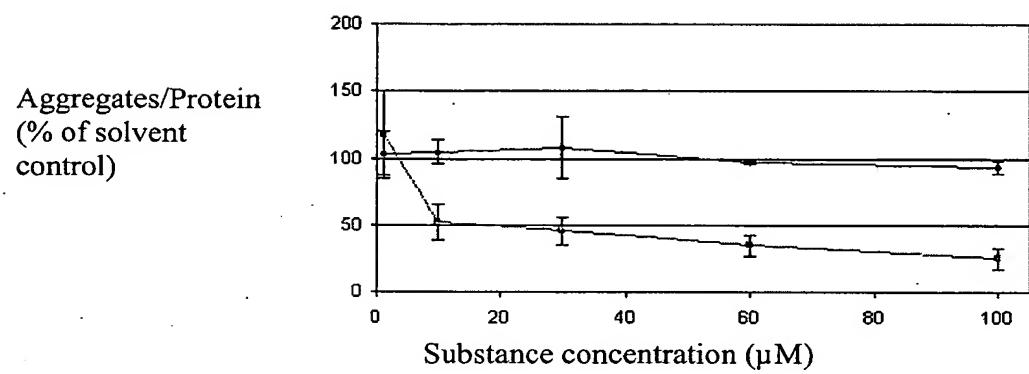
Figure 20

Aggregates/Protein  
(% of solvent  
control)



Substance: 5-[4-(Thiazole-2-ylcarbamoyl)-phenyl]-furan-2-carboxylic acid thiazole-2-ylamide

Figure 22



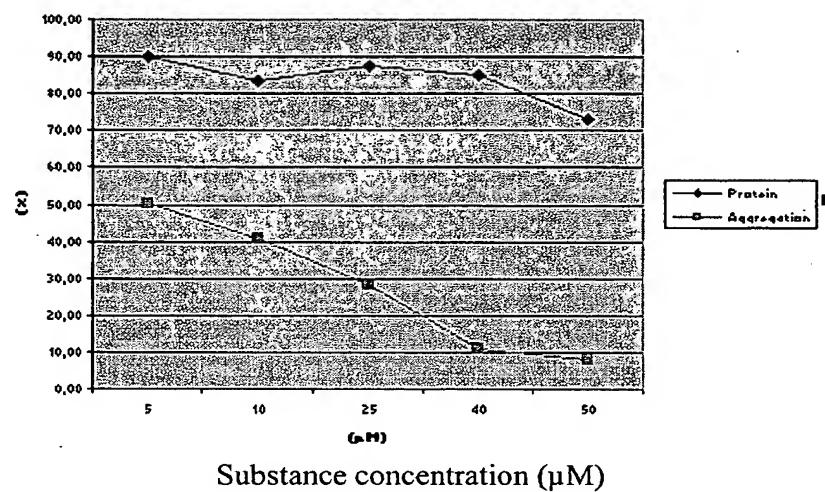
Substance: Thiophene-2-yl-acetic acid 4-(4-acetyl-piperazine-1-yl)-phenyl ester

Figure 21

## Aggregates/Protein

(% of solvent

control)

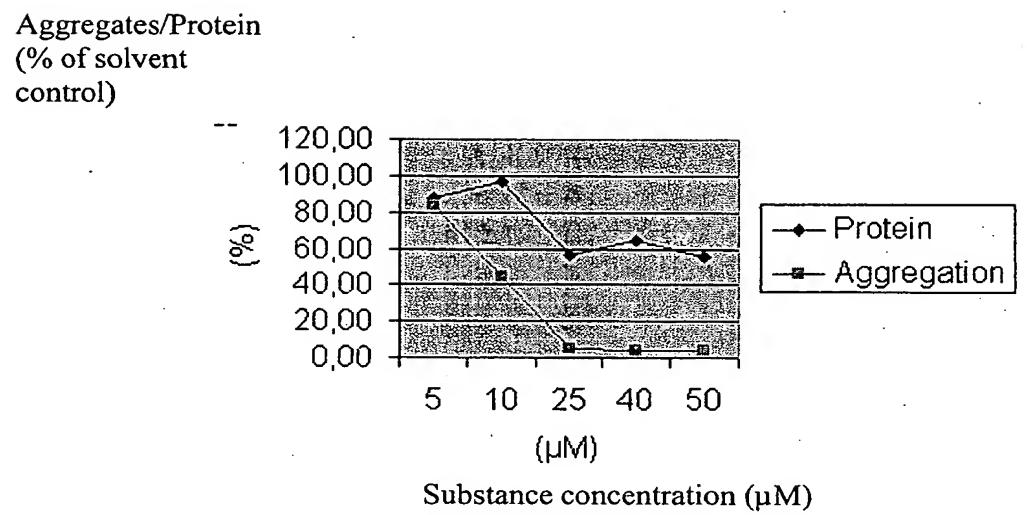


Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

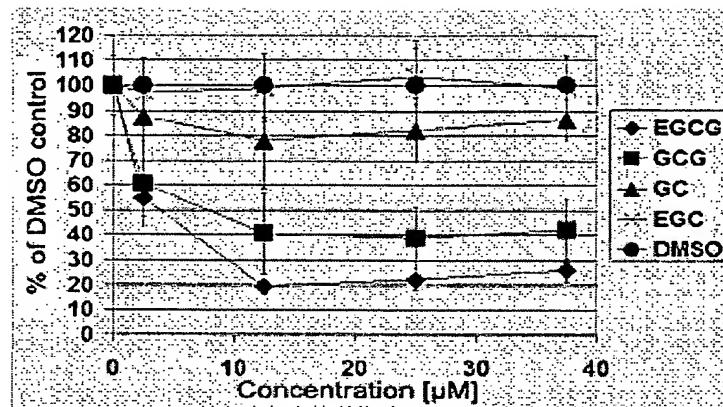
Substance: 4-Methyl-2-[3-(3-phenyl-[1,2,4]thiadiazole-5-yl)-ureido]-pentanoic acid ethyl ester

Figure 23



Substance: 4-Methyl-2-(3-phenyl-[1,2,4]thiadiazole-5-yl)-pentanoic acid ethyl ester

Figure 24



Substance abbreviations:

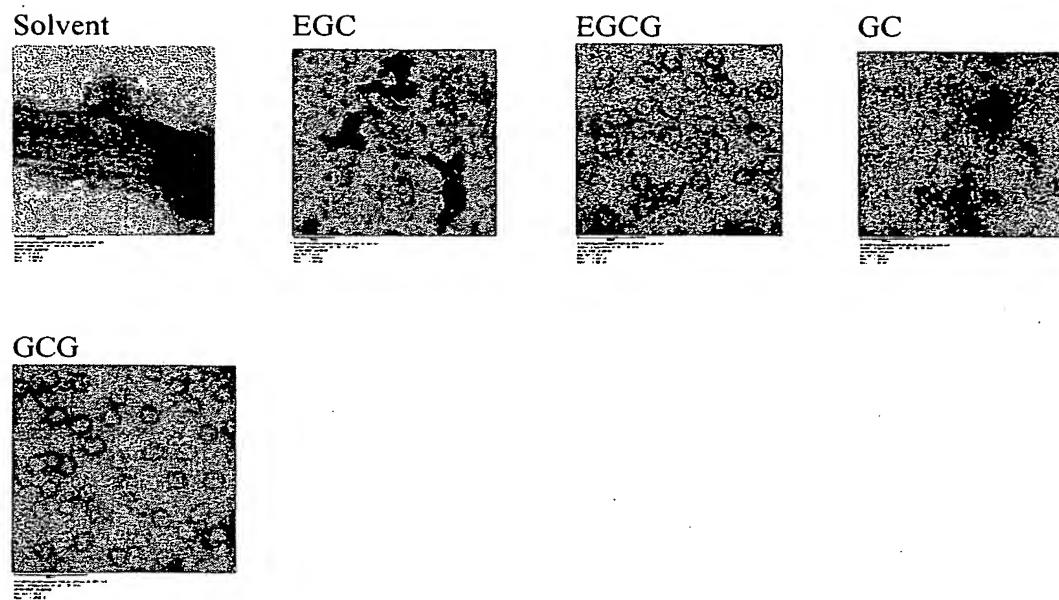
EGCG: Epigallocatechin gallate

GCG: Gallocatechin gallate

GC: Gallocatechin

EGC: Epigallocatechin

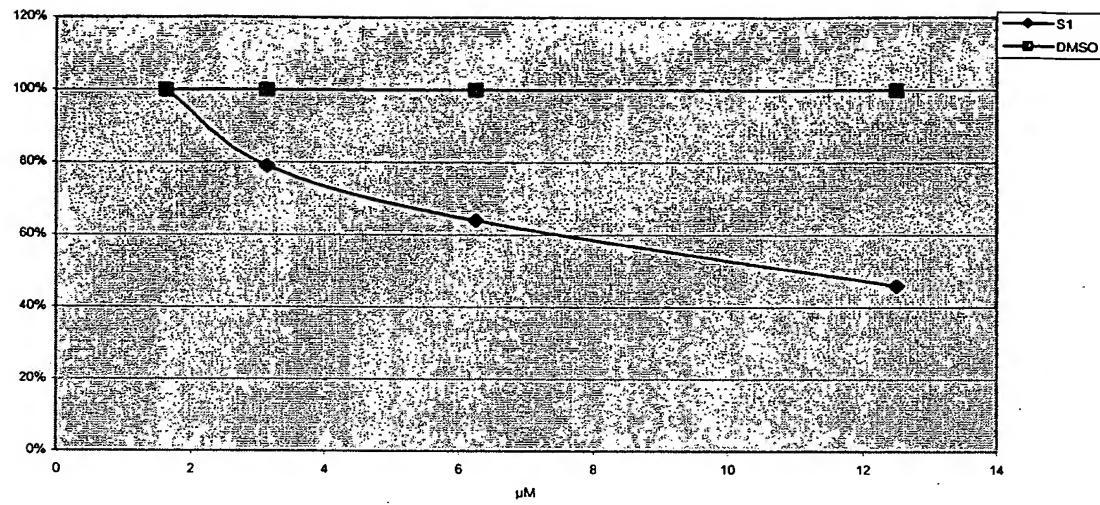
Figure 25



Substance abbreviations:

EGCG: Epigallocatechin gallate  
GCG: Gallocatechin gallate  
GC: Gallocatechin  
EGC: Epigallocatechin

Figure 26

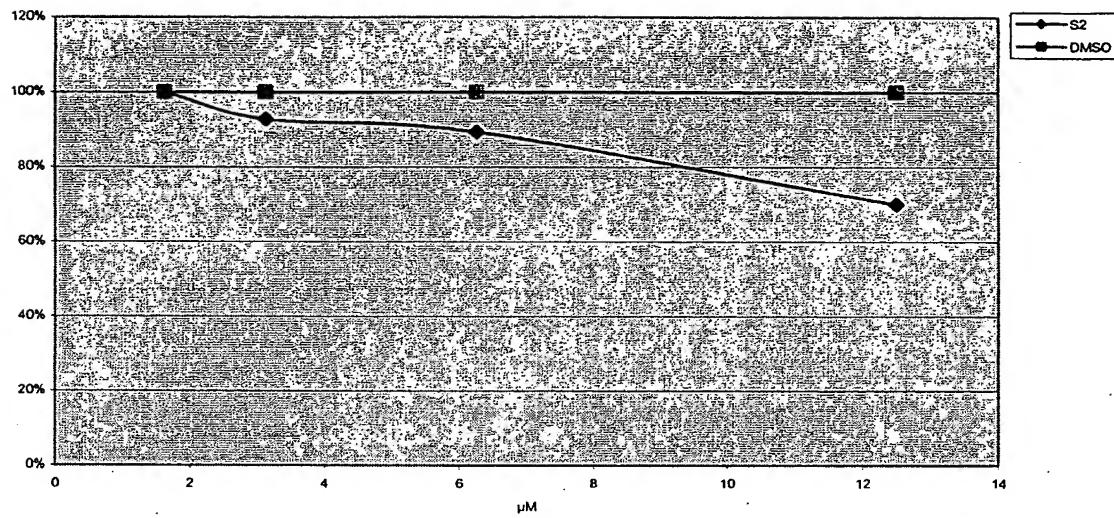


Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

S1 = 2-Amino-7-oxo-6,7-dihydro-thiazolo[4,5-f]quinoline-8-carbonitrile

Figure 27

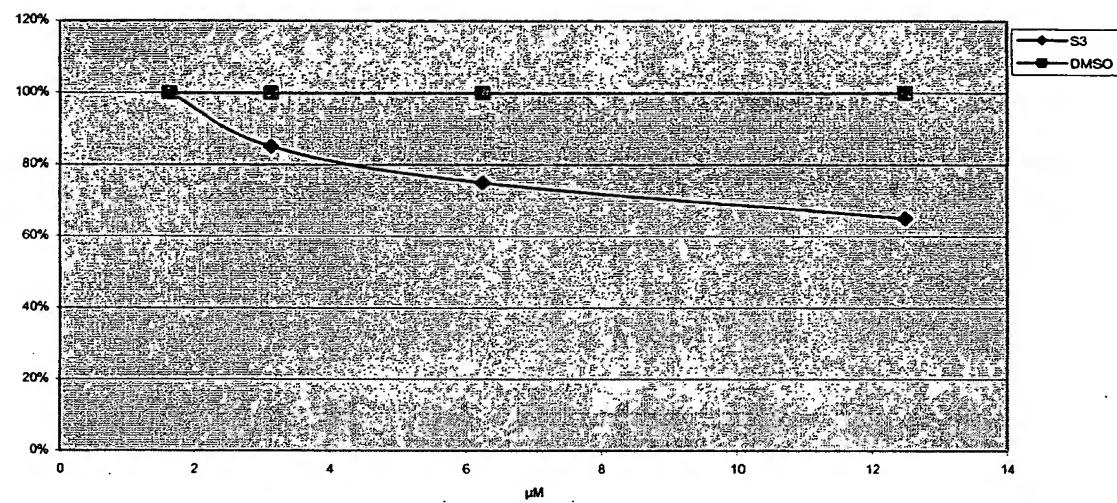


Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

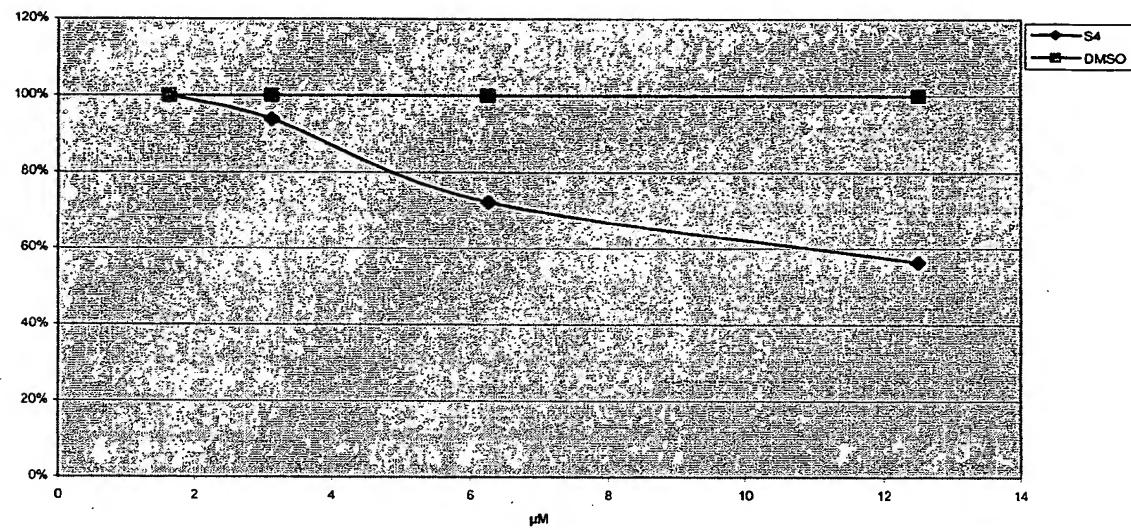
S2 = 2-(3-Dimethylamino-propylamino)-7-oxo-6,7-dihydro-thiazolo[4,5-f]quinoline-8-carbonitrile

Figure 28



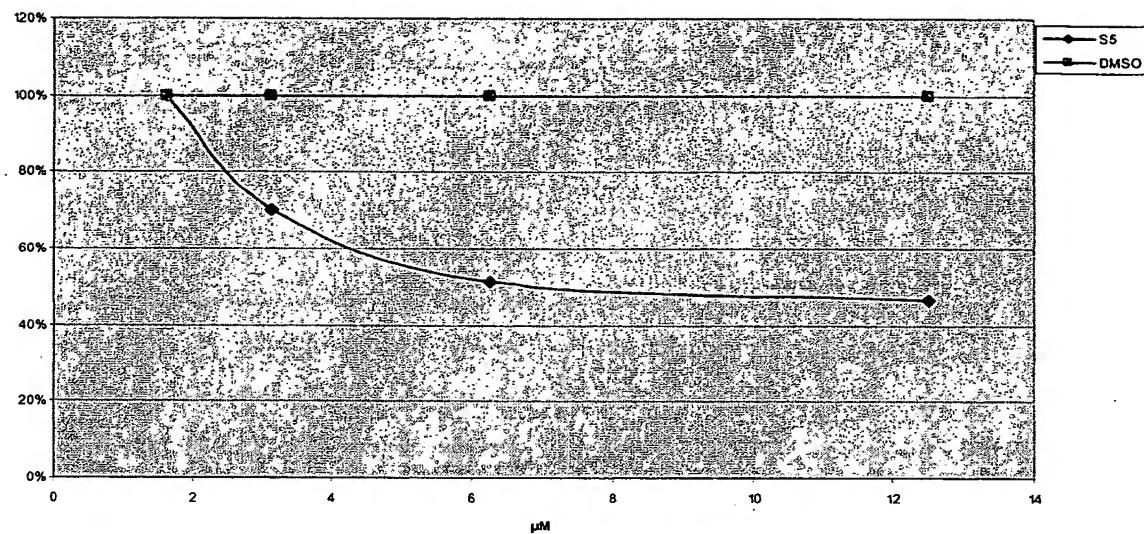
Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)  
Pink: Amount of SDS-insoluble protein aggregates  
S3 = N-(8-Cyano-7-oxo-6,7-dihydro-thiazolo[4,5-f]quinoline-2-yl)-N-(3-dimethylamino-propyl)-formamide

Figure 29



Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)  
Pink: Amount of SDS-insoluble protein aggregates  
S4 = N-(8-Cyano-7-oxo-6,7-dihydro-thiazolo[4,5-f]quinoline-2-yl)-acetamide

Figure 30

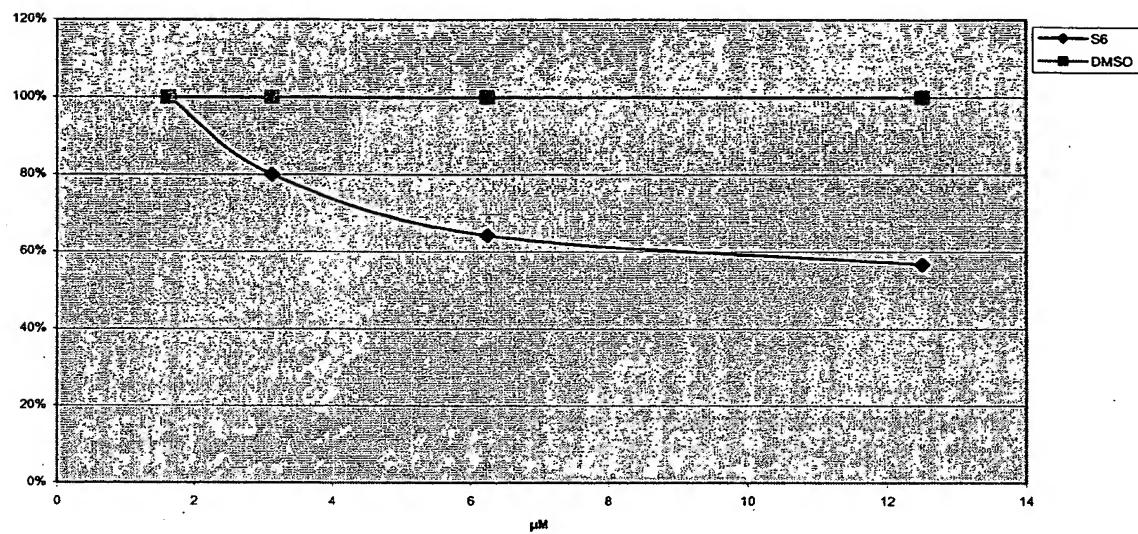


Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

S5 = N-(8-Cyano-7-oxo-6,7-dihydro-thiazolo[4,5-f]quinoline-2-yl)-N-(2-dimethylamino-ethyl)-formamide

Figure 31

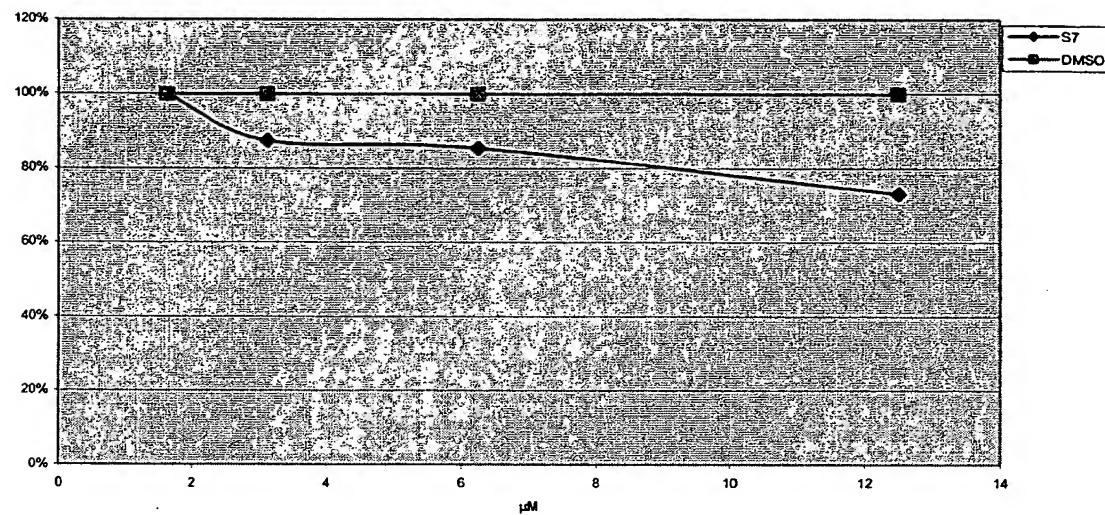


Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

S6 = N-(8-Cyano-7-oxo-6,7-dihydro-thiazolo[4,5-f]quinoline-2-yl)-N-(2-dimethylamino-ethyl)-acetamide

Figure 32

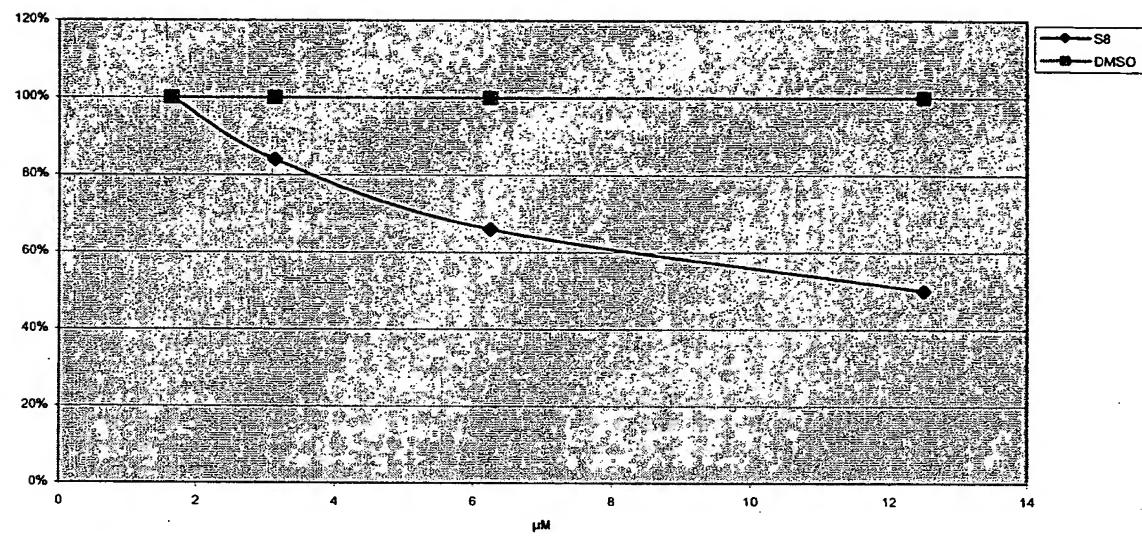


Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

S7 = 7-Oxo-2-(2-piperidine-1-yl-ethylamino)-6,7-dihydro-thiazolo[4,5-f]quinoline-8-carbonitrile

Figure 33

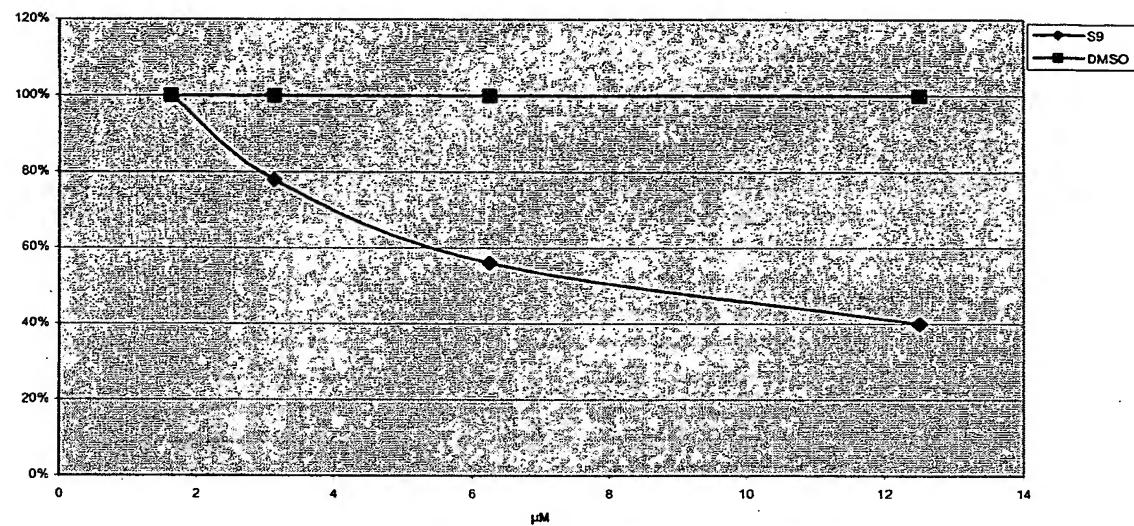


Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)

Pink: Amount of SDS-insoluble protein aggregates

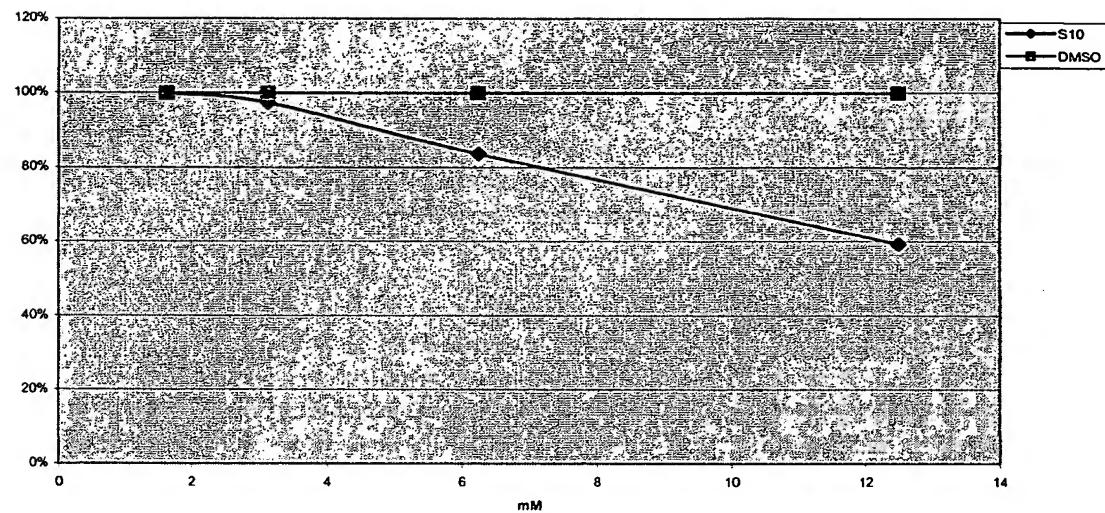
S8 = 2-[4-(3-Hydroxy-propyl)-piperazine-1-yl]-7-oxo-6,7-dihydro-thiazolo[4,5-f]quinoline-8-carbonitrile

Figure 34



Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)  
Pink: Amount of SDS-insoluble protein aggregates  
S9 = 2-[Benzyl-(2-dimethylamino-ethyl)-amino]-7-oxo-6,7-dihydro-thiazolo[4,5-f]quinoline-8-carbonitrile

Figure 35



Blue: Protein concentration in the cell lysate (as a measure of cell growth in the presence of the substance)  
Pink: Amount of SDS-insoluble protein aggregates  
S10 = 2-[(2-Diethylamino-ethyl)-ethyl-amino]-7-oxo-6,7-dihydro-thiazolo[4,5-f]quinoline-8-carbonitrile

Figure 36

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